SJB PLANNING

PEER REVIEW OF TRANSPORT IMPACT ASSESSMENT OF PROPOSED DEVELOPMENT, 1-9 ALLENGROVE CRESCENT, NORTH RYDE, NSW

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1.0 INTRODUCTION

Concept Approval MP10_0037 has been issued for the development site comprising 116a-122b Epping Road, 259-263 Lane Cove Road and 1-9 Allengrove Crescent, North Ryde. The development is for residential flat buildings . While the number of residential units was not specified in the Concept Approval, the indicative plans submitted with the final approved Concept Plan did show 154 units and 205 car parking spaces.

Following a change in ownership of the development site, a new detailed development application has been prepared, with 179 residential units proposed. A Section 75W Modification Application is to be prepared, to modify the existing Concept Approval, and to be lodged with the Department of Planning & Infrastructure. A Development Application is also to be prepared.

Part of the background to the current Consent was the Land & Environment Court Proceedings No.10468 of 2012, between EGC Custodian Services Pty Ltd and the Minister for Planning & Infrastructure. A *Transport & Accessibility Impact Study* was prepared for EGC Custodian Services Pty Ltd by Traffix, in a report dated May 2011.

For the current Section 75W Modification Application and Development Application, a new *Transport Impact Assessment* has been prepared by GTA Consultants, in a report dated 3 May 2013.

SJB Planning commissioned Christopher Hallam & Associates Pty Ltd to undertake a peer review of this *Transport Impact Assessment* by GTA Consultants. Christopher Hallam, the principal of Christopher Hallam & Associates Pty Ltd, previously provided advice on traffic and transport issues to the Minister, for the Proceedings EGC Custodian Services Pty Ltd versus the Minister for Planning & Infrastructure. As a provider of independent advice on traffic planning matters, Christopher Hallam & Associates Pty Ltd has no conflict of interest in undertaking this Peer Review. We already have a substantial understanding of the issues involved and the concerns of local residents. We also have the benefit of additional traffic data from these earlier Proceedings, and its analysis.

Our Brief from SJB Planning is stated as following:

> *"We understand that the key issue or concern in relation to this application is traffic generation and traffic impacts, primarily for the existing residents of Allengrove Crescent.*
>
> *In this regard, we are seeking a peer review of the Traffic Impact Assessment (Revision E) dated 3 May 2013 and prepared by GTA Consultants.*
>
> *The purpose of this exercise is to obtain a second opinion in relation to the traffic generation and traffic impacts associated with the development, to ensure that we are aware of any risks and that all measures are undertaken to minimise the impacts."*

As is further discussed, the GTA report relies on the earlier Traffix report for the assessment of external traffic implications. Thus, our review of the traffic issues will also cover the external traffic impact assessment in the Traffix report. To be conclusive, we have gone beyond these reports and have provided further independent analysis and review.

2.0 SITE ACCESS, LAYOUT AND PARKING

2.1 Site Access

Sections 4.2 and 5.2 of the GTA report discuss the site access off Allengrove Crescent. Section 4.2 describes the access as a 6m wide two-way driveway, while Section 5.2 describes it as an 8m driveway. The Level 1 plan shows it as 8m wide, set back 2m to allow future road widening of Allengrove Crescent. The location of this driveway is satisfactory. Within the property and set back from the boundary there will be a 1m wide central island, to allow an intercom system column to be located, to permit visitors to access the parking. As shown on the swept paths provided in the GTA report, this access will be satisfactory for cars and medium service vehicles, of up to 8.8m in length. The Level 1 plan shows the comments and recommendations of GTA, covering levels and minor setbacks from a column.

With the allowance for road widening, the report (page 9) states that road widening will be required to accommodate access by service vehicles, including garbage trucks. We note that the design service vehicle, 8.8m long, is smaller than a typical Council garbage truck. We assume that the removal of garbage from the internal garbage room on Basement 1 will be by contract, with suitable vehicles used.

The report recommends No Parking controls along the site frontage and No Stopping controls between the western site boundary and Lane Cove Road. These are agreed with. These controls would be authorised through the Local Traffic Committee. The suggestion is made that a pedestrian refuge island might be provided in Allengrove Crescent at Lane Cove Road, subject to Local Traffic Committee approval. While we have no objection to such a refuge, it might not be warranted, based on the future traffic flows.

The report sets out the ramp gradients into the site from the driveway, commenting that they are satisfactory. We agree. The initial 6m is at 5% gradient, followed by a 10% transition and then a central section at 1:6.5 (15.4%). The swept path plots indicate that the ramp dimensions are satisfactory.

In conclusion, the analysis by GTA and the proposed access design is satisfactory and meets AS2890.1-2004.

2.2 Site Layout

Section 5.2 of the GTA report sets out a review of the internal car parking are service area layout, supported by copies of the basement levels with comments and swept path plots. In terms of parking space dimensions, the report correctly states that parking spaces are to be 5.4m x 2.4m, with a minimum aisle width of 5.8m. This agrees with a Class 1A user in AS2890.1-2004. Note that a

space width of 2.4m is not adequate to permit a cage to be built around the space. We suggest a specific consent condition that such cages are not permitted to be built at any stage, present or future. The minimum height clearance within the parking area is stated to be 2.2m, which is appropriate, with one proviso. This is that above the disabled and accessible parking spaces, the height clearance needs to be 2.5m, to meet the requirements of AS2890.6-2009. This is not specifically stated in the GTA report or on the plans, but would be needed.

The issue of height clearance also relates to the loading facilities on Basement 1. On the plans provided in the GTA report, there is no height clearance stated. AS2890.2-2002 (Table 4.1) recommends a vertical clearance within service bays for a Medium Rigid Vehicle of 4.5m. Vertical clearance would be needed from the street into Basement 1.

Turning to the plans in the report and the recommendations of GTA:

Basement 1

- Recommendations agreed.

Basement 2

- General recommendations agreed.
- The Disabled/Accessible parking spaces are designed to meet AS2890.6-2009, with a shared space adjacent. As stated above, a height clearance of 2.5m above these spaces is required (to assist the movement of wheel chairs on the roof), with 2.2m satisfactory for the drive into the space.
- The blind aisles are satisfactory in a private residential parking area.
- The location of Visitor parking in the initial section is appropriate.

Basement 3

- Recommendations agreed.

Swept Path Plots

- These appear to correctly represent the paths of design vehicles. With the indicated paths of service vehicles, the dark lozenge section on the first bend into Basement 1 is presumably painted and not a solid construction, and does not have columns located on it. If columns were proposed, they would need to be located to not prevent the swept paths shown on the plans.

In conclusion, the analysis by GTA is generally satisfactory, subject to specific recommendations on height clearances and the central island on the ramp.

2.3 Car Parking

Section 5.1 of GTA sets out the car parking analysis. Table 5.1 correctly calculates the car parking required under *Ryde DCP 2010 Part 9.3 – Parking Controls.* This shows a minimum of 176 spaces and a maximum of 237 spaces. The site is well located for public transport accessibility, with bus services, plus the railway station, which is 375m from the northern corner of the site. The proposed provision of 218 spaces is more than halfway in the range, and we agree with GTA that it is a satisfactory level of provision, based on the DCP requirements. The allocation of spaces is:

- Residential spaces 179 (including 18 adaptable)
- Visitor spaces 36
- Car share space 1
- Bicycle spaces 222

We conclude that the proposed provision of car and bicycle parking is satisfactory.

3.0 EXTERNAL TRAFFIC IMPLICATIONS

3.1 Overview

The analysis of the external traffic implications relies on the Paramics area traffic modelling set out in the Traffix report of May 2011. The underlying argument is that the Traffix analysis assessed the traffic implications of a development with 196 units, and concluded that it would be satisfactory. With the current proposal being for 179 units, it would therefore follow that it would also be satisfactory.

We will make some comment on the broader traffic implications, taking into account relative traffic generation. However the one area that we do not consider has been fully addressed is the situation in Allengrove Crescent, and its junction with Lane Cove Road. We have addressed this separately.

The GTA report concentrates on the traffic implications of this development and does not offer any comments on any cumulative traffic implications of other potential developments in the area, which might be done in a strategic study.

3.2 Traffic Generation

The May 2011 Traffix report addressed the traffic implications of a development with 196 units. It used an RTA "medium density" traffic generation rate of 0.4 veh/hr/unit, thus resulting in a weekday peak hour traffic generation of 78 veh/hr. This was done as a conservative analysis, while recognising that in the RTA's *Guide to Traffic Generating Developments,* figures are also given for high density residential flat buildings. For a Metropolitan Sub-regional Centre, the recommended rate is 0.29 veh/hr/unit, irrespective of the number of bedrooms.

The GTA report sets out both rates, and states that the weekday peak hour traffic generation of the proposed 179 units will thus be in the range 52-72 veh/hr. We agree with these calculations. With the nature of development proposed, with the proximity of employment in the area and with the good public transport, in particular with the railway station under 400m away, we tend to the view that the generation will be towards the low end of this range.

3.3 Allengrove Crescent

The GTA report does not address the concerns of residents in Allengrove Crescent, that the additional traffic will adversely affect their residential amenity. These impacts can be assessed using

the guidelines on environmental capacity set out in the RTA's *Guide to Traffic Generating Developments,* as set out in Table 3.1 below.

TABLE 3.1 Environmental Capacity Performance Standards on Residential Streets

Road class	Road type	Max. Speed (km/hr)	Max.peak hour flow (veh/hr)
Local	Access way	25	100
	Street	40	200 environmental goal
		40	300 maximum
Collector	Street	50	300 environmental goal
		50	500 maximum

Allengrove Crescent is a Local Street, and hence has an environmental goal of 200 veh/hr and a maximum of 300 veh/hr. These figures relate to weekday peak hours. The Traffix report provides modelled traffic flows for the base case in Allengrove Crescent. We prefer to use traffic counts we undertook in June 2012, where the following two-way traffic flows were recorded approaching Lane Cove Road:

7.00-8.00am	8 veh/hr	3.30-4.30pm	14 veh/hr
8.00-9.00am	12 veh/hr	4.30-5.30pm	11 veh/hr

These figures reasonably reflect the current number of detached dwellings in Allengrove Crescent, where 18 have their driveways onto Allengrove Crescent, including five from the subject site. For the review, we have taken the current peak hour movement to be 14 veh/hr.

With the removal of five dwellings, the base flow would reduce to about 10 veh/hr. The additional traffic from the development would be +52-72 veh/hr. The range in future peak hour traffic will thus be 62-82 veh/hr. We are of the view that the lower end figure is more likely, say 55 veh/hr. Thus:

- Current weekday peak hour two-way flow 14 veh/hr
- Future weekday peak hour two-way flow 65 veh/hr

While the percentage increase is substantial, the resulting absolute level will be satisfactory, with 65 veh/hr significantly less than the goal of 200 veh/hr. We conclude that the traffic impact on amenity in Allengrove Crescent will be satisfactory.

At the junction of Allengrove Crescent and Lane Cove Road, vehicles turning left into Allengrove Crescent will not be delayed. Right turn movements are prohibited. Vehicles turning left into Lane Cove Road will give way to through traffic on Lane Cove Road. Gaps in this through traffic will be

created by downstream traffic signals. Drivers leaving Allengrove Crescent are probably likely to seek a gap in the kerb lane. This left turn out of Allengrove Crescent will increase from about 3 veh/hr to 45 veh/hr in the morning peak, and from 6 veh/hr to 16 veh/hr in the afternoon peak. An intersection analysis has been undertaken, based on these flows, with the conclusion being that there will be adequate capacity in Lane Cove Road to absorb these additional vehicles, and hence the impact at this intersection will be satisfactory. We therefore conclude that the external traffic implications in Allengrove Crescent will be satisfactory.

3.4 Intersection Review

The GTA report notes that the May 2011 Traffix report assessed the external traffic implications of 196 units, at a generation rate of 0.4 veh/hr/unit, or 78 veh/hr, and concluded that the implications were satisfactory. The GTA report further commented that the Concept Approval plans showed 154 units, compared with the current proposal for 179 units, with the additional 25 units having an incremental generation of 10 veh/hr, based on the high-end rate of 0.4 veh/hr/unit, representing 1 vehicle every 7.5 minutes exiting the site onto Allengrove Crescent and turning left onto Lane Cove Road.

As discussed, we consider that a traffic generation rate for a high density residential flat building could be more likely, so that the additional traffic in Allengrove Crescent will be 50-55 veh/hr. Beyond the intersection of Allengrove Crescent and Lane Cove Road, this additional traffic will become distributed over many routes and intersections.

We agree with the conclusions drawn by GTA that there is adequate capacity in the surrounding road network to cater for the traffic generated by the proposed development.

4.0 CONCLUSIONS

1. The analysis by GTA of site access is appropriate and agreed with.
2. The analysis of the layout of the service and parking areas is generally concurred with, subject to height clearances over the accessible parking spaces and over the service vehicle area and the design of the island within the ramp.
3. We agree with GTA that the proposed quantum of car parking will be satisfactory.
4. The GTA report does not specifically address the environmental capacity implications in Allengrove Crescent. This is addressed in the May 2011 Traffix report. We have considered this issue afresh, with new traffic count data, and conclude that this aspect of the proposal will be satisfactory.
5. The GTA report relies in part on the Traffix report in its review of external traffic implications at intersections. We have reviewed the estimates of traffic generation and have concluded that the traffic implications at intersections in the area will be satisfactory.